Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of performing file maintenance on a plurality of storage devices, comprising:

(a) measuring file system parameters;

(b) determining periods of low disk activity; and

(c) upon determination of low disk activity period, performing a file maintenance action based on said system parameters;

wherein (a), (b), and (c) are performed automatically; and

wherein said file maintenance action comprises at least file defragmentation.

2. (Original) The method of claim 1 wherein (a) includes maintaining a list of the files with the most I/O.

3. (Original) The method of claim 2 wherein (c) includes computing the average number of I/O cycles on the storage devices and moving a file from one disk to another based on said average.

4. (Original) The method of claim 3 wherein said file is moved to the disk that results in the smallest deviation from the average.

5. (Original) The method of claim 1 wherein (a) includes maintaining a list of the files with the most I/O over a programmable period of time.

6. (Original) The method of claim 1 wherein (a) includes maintaining a fragmentation list of files that have been fragmented.

7. (Original) The method of claim 6 wherein for each fragmented file in the fragmentation list, a value is stored, said value being representative of the ratio of the size of the fragmented file to the number of extents that are necessary to store the file on the storage devices.

8. (Original) The method of claim 7 wherein (c) includes selecting for defragmentation a fragmented file that has a lower ratio than other fragmented files.

9. (Original) The method of claim 6 wherein (c) includes selecting a fragmented file to be defragmented and storing said defragmented file on a different storage device than was used to store said fragmented file.

10. (Original) The method of claim 6 wherein (c) includes selecting a fragmented file to be defragmented and storing said defragmented file on the same storage device than was used to store said fragmented file.

11. (Original) The method of claim 9 wherein (c) includes determining on which storage device to store said defragmented file, said storage device determination including:

(c1) determining the amount of free space on each of said storage devices;

(c2) computing the average amount of free space on said storage devices; and

(c3) selecting the storage device on which to store said defragmented file that would result in an amount of free space that is closer to the average computed in (c2) than would be the case with other of said storage devices.

12. (Original) The method of claim 1 wherein (b) includes examining a queue of pending storage device I/O requests to determine whether any I/O requests are pending.

13. (Currently amended) A computer system, comprising:
a processor;
random access memory coupled to said processor;
a plurality of storage devices coupled to said processor; and
software stored on said random access memory and executed by said processor, said software performing maintenance on files stored on said storage devices in a background mode;
wherein said maintenance comprises at least file defragmentation.

14. (Original) The computer system of claim 13 wherein said software maintains a list of the files with the most I/O in said random access memory.

15. (Original) The computer system of claim 14 wherein said software computes the average number of I/O cycles for a predetermined set of files with the most I/O on the storage devices and moving a file from one storage device to another based on said average.

16. (Original) The computer system of claim 15 wherein said software causes said file to be moved to the disk that results in the smallest deviation from the average.

17. (Original) The computer system of claim 13 wherein said software maintains a list of the files with the most I/O over a programmable period of time.

18. (Original) The computer system of claim 13 wherein said software maintains a fragmentation list of files that have been fragmented.

19. (Original) The computer system of claim 18 wherein for each fragmented file in the fragmentation list, said software stores a value, said value being representative of the ratio of the size of the fragmented file to the number of extents that are necessary to store the file on the storage devices.

20. (Original) The computer system of claim 19 wherein said software selects for defragmentation a fragmented file that has a lower ratio than other fragmented files.

21. (Original) The computer system of claim 18 wherein said software selects a fragmented file to be defragmented and stores said defragmented file on a different storage device than was used to store said fragmented file.

22. (Original) The computer system of claim 18 wherein said software selects a fragmented file to be defragmented and stores said defragmented file on the same storage device than was used to store said fragmented file.

23. (Original) The computer system of claim 21 wherein said software determines on which storage device to store said defragmented file by:

determining the amount of free space on each of said storage devices;

computing the average amount of free space on said storage devices; and

selecting the storage device on which to store said defragmented file that would result in an amount of free space that is closer to the average than would be the case with other of said storage devices.

24. (Original) The computer system of claim 13 wherein said software examines a queue of pending storage device I/O requests to determine whether any I/O requests are pending.